REMARKS

In the Final Office Action mailed June 25, 2008, the Examiner objected to Claim 1, rejected Claims 4 and 15 under 35 U.S.C. §112(1) for lacking written description, rejected Claims 1, 4 and 15 under 35 U.S.C. §112(2) for indefiniteness, and rejected Claims 1-3, 5-14 and 16-21 under 35 U.S.C. §103(a) as being obvious in light of U.S. Patent No. 3,696,808 (hereinafter, "the Roy patent") and U.S. Patent No. 5,995,868 (hereinafter, "the Dorfmeister patent"). Each objection and rejection is addressed below.

I. Objection to Claim 1

The Examiner stated at page 2 of the Office Action:

> 2. Claim 1 is objected to because of the following informalities:
>
> Lines 2 and 4 call for first and second data sensors "positioned on the scalp of a/said subject". The human body may not be claimed. For the purposes of examination, the phrases will be treated as though reading "configured to be positioned on the scalp of a/said subject".

The Applicants amend Claim 1 in the manner the Examiner is treating the claim.

II. Rejection of Claims 4 and 15 under 35 U.S.C. §112(1) – Written Description

The Examiner stated at page 2 of the Office Action :

> 4. Claims 4 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose at any point performing measurements at time points having any interval between measurements; the claims have introduced new matter.

The Applicants respectfully disagree. However, in order to expedite prosecution without acquiescing with the Examiner's arguments, Claims 4 and 15 are now amended such that each recites, "…wherein said data is collected at ~~more than one time point is separated by~~ ten minute intervals." The Applicants preserve the right to prosecute Claims

4 and 15, or similar claims, at a future date. Written description supporting currently presented Claims 4 and 15 is located throughout the Specification. In particular, the Examiner is directed to page 15, lines 9-16, wherein comparison of marginal predictability values based upon data collected over time intervals of 10, 20, 60, or more, minutes is described. In addition, the Examiner is directed to page 19, line 28 through page 20, line 16. Per such written description, the Applicants request withdrawal of these rejections.

III. Rejection of Claims 1, 4 and 15 under 35 U.S.C. §112(2) – Indefiniteness

The Examiner stated at page 3 of the Office Action:

> 6. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In line 11, the processor is used to find first and second predictability values, but line 13 refers to "said first/second marginal predictability value". The inconsistency between the two makes the claim indefinite. For the purposes of examination, the claim will be treated as though both instances involve a plurality of values.

The Applicants respectfully disagree. However, in order to expedite prosecution, the Applicants amend Claims 1 and 12. Claim 1 is amended in the following manner:

> "…a processor configured to analyze data collected at more than one time point, wherein said data for each time point is collected from said first and said second data sensors, wherein said processor performs a nonlinear mathematical manipulation of said data thereby producing ~~first~~ marginal predictability values ~~and second marginal predictability values~~ for each time point, wherein said processor is configured to determine the difference between said ~~first~~ marginal predictability values~~value and said second marginal predictability value~~ for each time point, wherein a decreasing difference between said ~~first~~ marginal predictability values~~value and said second marginal predictability value~~ over time is predictive of ictal onset for said subject."

Claim 12 is amended in the following manner:

"…iii. a processor configured to analyze data collected at more than one time point, wherein said data for each time point is collected from said first and said second data sensors, wherein said processor performs a nonlinear mathematical manipulation of said data thereby producing ~~first~~ marginal predictability values ~~and second marginal predictability values~~ for each time point, wherein said processor is configured to determine the difference between said ~~first~~ marginal predictability values~~value and said second marginal predictability value~~ for each time point;

b. obtaining ~~first~~ marginal predictability values ~~and said second marginal predictability values~~ for more than one time point from a subject with said system;

c. determining the difference between said ~~first~~ marginal predictability values~~value and said second marginal predictability value~~ between said time points, wherein a decreasing difference between said ~~first~~ marginal predictability values ~~value and said second marginal predictability value~~ over time is predictive of ictal onset for said subject.

Per such amendments, the Applicants request withdrawal of the rejections. The Applicants preserve the right to prosecute previously filed Claims 1 and 12, or similar claims, at a future date.

The Examiner stated on page 3 of the Office Action:

> 7. Claims 4 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear from the claim what is separated by ten minute intervals.

The amendment of Claims 4 and 15 such that each recites, "…wherein said data is collected at ~~more than one time point is separated by~~ ten minute intervals…" renders these rejections moot.

IV. Rejection of Claims 1-3, 5-14 and 16-21 under 35 U.S.C. §103(a)

The Examiner stated, "Claims 1-21 are rejected under 35 U.S.C. §103(a) as being unpatentable over [the Roy and Dorfmeister patents]."

The Applicants respectfully disagree. However, as noted, Claims 1 and 12 are amended. Neither the Roy patent nor the Dorfmeister patents, alone or in combination, teach all of the elements of Claims 1 and/or 12.

First, neither the Roy patent nor the Dorfmeister patent, alone or in combination, teach producing marginal predictability values based upon data collected at different time points, wherein the data collected for each time point is collected from first and the second data sensors. In attempting to establish this claim element the Examiner relied upon the Roy patent and stated, "The signals collected from different sides of the brain are filtered and cross correlated in order to determine a correlation coefficient that is indicative of the epileptic seizure (Col. 5, lines 20-68 of Roy)." This portion of the Roy patent (col. 5, lines 20-68), however, pertains to identifying differences at one time point between sensors for the purpose of mapping mapping the location of eliptogenic focus. The Dorfmeister fails to remedy this deficiency. Indeed, nothing is stated regarding the producing of marginal predictability values based upon data collected at different time points, wherein the data collected for each time point is collected from first and the second data sensors, as required by the claimed invention.

Second, neither the Roy patent nor the Dorfmeister patent, alone or in combination, teach determining differences between marginal predictability values, wherein decreasing differences is predictive of ictal onset for a subject. In attempting to establish this claim element the Examiner relied upon the Roy patent and stated, "The signals' amplitude and phase differences is calculated after the collected signals are passed through a comparator and the ictal onset is predicted by difference in the first marginal predictability value and a second marginal predictability value (102, 103 and Col. 3, lines 40-68 and Col. 5, lines 20-68 of Roy). Again, the Applicants respectfully submit the Examiner's interpretation of the Roy patent is incorrect. The passages relied upon by the Examiner pertain not to predicting ictal onset, but rather to determining location of an eliptogenic focus. The Dorfmeister fails to remedy this deficiency.

Moreover, the Examiner's suggestion that "…the ictal onset is predicted by difference in the first marginal predictability value and a second marginal predictability value…" suggests a fundamental misunderstanding of the currently presented claim set.

In particular, a marginal predictability value, as recited in the currently presented claim set, is based upon the collection of data at one time point, wherein the data collected for a time point is collected from first and the second data sensors. The Roy patent, however, describes the comparison of data collected at one sensor and a second sensor. In its interpretation of the Roy patent, the Examiner is apparently presuming that data collected at each sensor is a separate marginal predictability value. As "marginal predictability value" recited in the currently presented claims relies upon data collected from two or more sensors, the Roy patent and the currently claimed invention represent fundamentally different systems and methods.

Accordingly, the Roy and Dorfmeister patents, alone or in combination, fail to teach all of the elements of the currently presented claim set. The Applicants request withdrawal of such rejections.

V. Conclusion

All grounds of rejection of the Office Action of April 16, 2009, have been addressed and reconsideration of the application is respectfully requested. Should the Examiner believe that a telephone interview would aid in the prosecution of this application Applicant encourages the Examiner to call the undersigned collect at (608) 218-6900.

Dated: 16 September 2009 /Robert A. Goetz/

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